9-2

Independent Assurance:

Review IA Correlations

Objectives

Search for a Specific IA Correlation Record Create a New IA Correlation Record

Review IA Correlations

The **Review IA Correlations** window can be used to retrieve existing correlation records, or to create a new correlation record.

Retrieve Existing Correlation Records

To retrieve a list of specific IA Correlation records, do the following:

- Log onto HiCAMS, using the instructions in "HiCAMS Step 1: Getting Started."
- Select Independent Assurance from the Functions Step 2: menu and choose Review IA Correlations from the submenu.

The **IA Correlation Search** window displays:



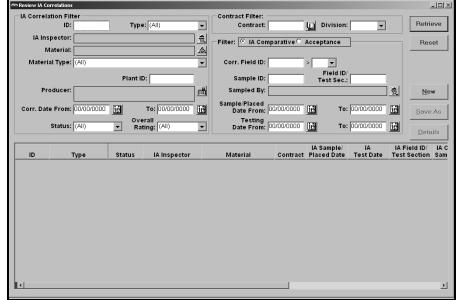


Figure 1

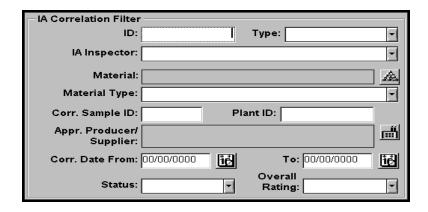
The **Correlation Search** window contains three different types of filters:

Filters specific to the IA correlation record

- Filters specific to the associated contract
- Filters specific to HiCAMS samples that may have been created as part of the comparative testing process.

Correlation Filters

The *IA Correlation Filter* section of the selection window appears below:



Each of the filters pictured above are based on miscellaneous information contained in the correlation record. These filters can be used individually or in combination with other filters within the search window.

Step 3: Set relevant IA Correlation filters. An explanation of each correlation filter appears below:

ID

The ID number assigned by the HiCAMS application to the correlation record. To retrieve a single correlation record, type the correlation ID directly into the *ID* field.

Type

The type of correlation. To retrieve a list of all IA correlations of a specific type, select a type from the list box in the *Type* field.

IA Inspector

The IA Inspector associated with a correlation record. To retrieve a list of all IA correlations associated with a specific Inspector, select the inspector's name from the list box in the *IA Inspector* field.

Material

The Material associated with a correlation record. To retrieve a list of all IA correlations associated with a specific material, click the **Material** icon to the right of the Material field and choose a material description from the **Material Selection** window.

Material Type

The Material Type associated with a correlation record. To retrieve a list of all IA correlations associated with a specific type of material, select the material type from the list box in the *Material Type* field.

Corr. Sample ID

The HiCAMS sample number entered in the *Correlated Sample ID* field of an IA-Comparative sample. To retrieve the correlation record associated with a specific Correlated Sample ID, type the ID directly in the *Corr. Sample ID* field.

Plant ID

The ID number of the facility providing the tested material. To retrieve a list of all IA correlations associated with a specific facility, type the Plant ID directly into the *Plant ID* field.

Appr. Producer/Supplier

The Approved Producer/Supplier providing the material being tested. To retrieve a list of IA correlations associated with a specific Producer/Supplier, click the **Factory** icon to the right of the *Appr. Producer/Supplier* field and choose a Producer/Supplier from the **Producer/Supplier Selection** window.

Corr. Date From

The beginning date in a range of correlation dates. To retrieve a list of all IA correlations created within a specific date range, enter the beginning date by typing a date directly into the *Corr. Date From* field, or click the **Calendar** icon and select a date from the **Calendar** window.

To

The ending date in a range of correlation dates. To retrieve a list of all IA correlations created within a specific date range, enter the ending date by typing a date directly into the *Corr. Date To* field, or click the **Calendar** icon and select a date from the **Calendar** window.

Status

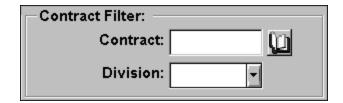
The status of a correlation record. To retrieve a list of all IA correlations in a particular status (i.e., New, Pending, Verified, Complete, Void), select a status from the list box in the *Status* field.

Overall Rating

Where applicable, the overall rating of a correlation record. To retrieve a list of all IA correlations with a specific overall rating, select a rating from the list box in the *Overall Rating* field.

Contract Filters

The *Contract* Filter section of the selection window appears below:



Each of the filters pictured above are based on contract information contained in the correlation record. These filters can be used individually or in combination with other filters within the search window.

Step 4: Set relevant contract filters. An explanation of each contract filter appears below.

Contract

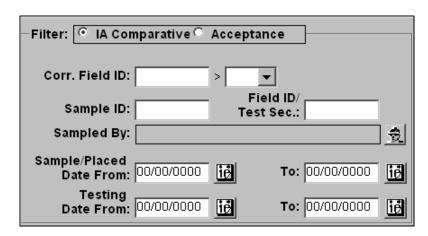
The contract number associated with a correlation record. To retrieve a list of all IA correlations associated with a specific contract number, type the contract number directly into the *Contract* field or click the **book** icon and select a contract from the **Contract Selection** window.

Division

The division associated with a correlation record. To retrieve a list of all IA correlations within a specific division, select a division from the list box in the *Division* field

IA Comparative & Acceptance/QA Sample Filters

The *IA Comparative* and *Acceptance/QA Sample* Filters appear below:



Each of the filters pictured above are based on sample information contained in the correlation record. These filters can be used individually or in combination with other filters within the search window.

- **Step 5:** Select a sample type by activating the appropriate radio button (*IA Comparative* or *Acceptance/QA*). Once a sample type is chosen, the remaining filters within this area apply only to the sample type chosen.
- **Step 6:** Set relevant sample filters. An explanation of each sample filter is as follows:

IA Comparative

The testing category set on an IA Comparative sample. Setting this filter will force the retrieval process to concentrate only on samples with a test category equal to "IA – Comparative"

Acceptance/QA

The testing category set on an Acceptance or QA sample. Setting this filter will force the retrieval process to concentrate only on samples with a test category equal to "Acceptance" or "Quality Assurance"

Corr. Field ID

Added two fields to help better match ABC material sample tests. A The Correlated field id is taken from the Acceptance sample and is used to match the IA Comparative sample with the Acceptance Sample. The drop down menu of A or B indicates which column in the Acceptance sample test format the IA Sample should match against.

Sample ID

The HiCAMS sample number associated with a correlation record. To retrieve a correlation record associated with a specific HiCAMS sample, type the sample number directly into the *Sample ID* field.

Field Id/Test Sec.

The field number or test section number on a HiCAMS sample. To retrieve a list of all IA correlation records associated with samples that have a particular field or test section number, enter the number directly into the *Field ID/Test Sec.* field.

Sampled By

The person who took a HiCAMS sample. To retrieve a list of all IA correlation records associated with samples that were taken by a specific person, click the **staff** icon and select the person from the **Staff Selection** window.

Sample/Placed Date From

The beginning date in a range of sampling or placed dates. To retrieve a list of all IA correlations associated with samples that were taken or placed within a specific date range, enter the beginning date by typing a date directly into the *Sample/Placed Date From* field, or click the **calendar** icon and select a date from the **Calendar** window.

To

The ending date in a range of sampling or placed dates. To retrieve a list of all IA correlations associated with samples that were taken or placed within a specific date range, enter the ending date by typing a date directly into the *Sample/Placed Date To* field, or click the **calendar** icon and select a date from the **Calendar** window.

Testing Date From

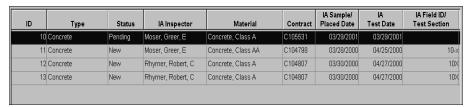
The beginning date in a range of testing dates. To retrieve a list of all IA correlations associated with samples that were tested within a specific date range, enter the beginning date by typing a date directly into the Testing Date From field, or click the calendar icon and select a date from the calendar window.

To

The ending date in a range of testing dates. To retrieve a list of all IA correlations associated with samples that were tested within a specific date range, enter the ending date by typing a date directly into the *Testing Date To* field, or click the **calendar** icon and select a date from the **Calendar** window.

<u>R</u>etrieve

Step 7: Click **Retrieve** A list of IA correlation records matching the filter criteria will appear in the lower portion of the window. A sample appears below:



Step 8: To view the correlation details, double click a line item in the grid.

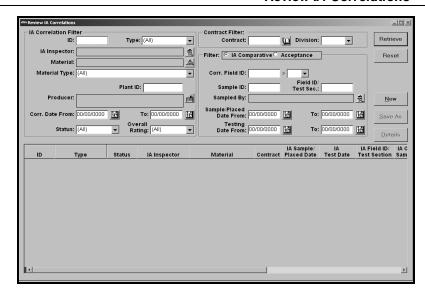
Create a New Correlation Record

The correlation types that will require a user to manually create the correlation record are:

- Conventional Density
- Nuclear Density

To create a new IA Correlation record, do the following:

- **Step 1:** Log onto HiCAMS, using the instructions in "HiCAMS Getting Started."
- Step 2: Select **Independent Assurance** from the **Functions** menu and choose **Review IA Correlations** from the submenu. The **IA Correlation Search** window displays:



Step 3: Click the **New** button

Tip: If the correlation record you wish to create closely matches a correlation record that already exists, search for the existing record, and click the SAVE AS button. This function will copy much of the data from the existing record to the new record, saving data entry time and effort. See the "Retrieve Existing Correlation Records" heading earlier in this section for detailed instructions on finding an existing correlation record.

The IA Correlation Detail: New window displays:

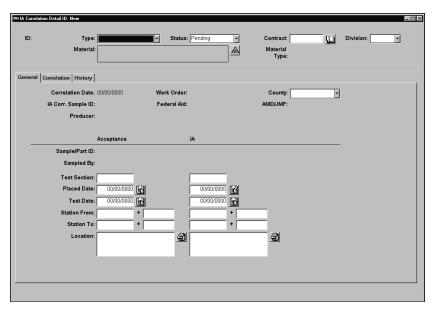


Figure 2

Correlation Header

The header portion of an IA Correlation record appears below:



If you have used the SAVE AS function to create this correlation record, some fields may already contain information.

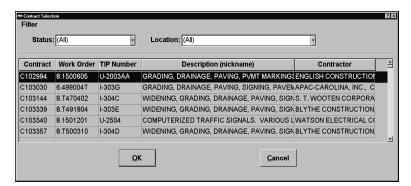
- **Step 4:** Choose a correlation type from the list box in the *Type* field
- **Step 5:** To verify the correlation as part of the data entry process, choose "Verified" from the list box in the *Status* field.

Note: Verifying a correlation as part of the data entry process is not available to all staff. Only the appropriate IA Inspector, Concrete Technician, or the IA Section Supervisor can verify a correlation during data entry.

By default, the status of a new correlation record is set to "Pending." Leaving the correlation in a pending status will cause it to appear in the **Pending Verification** window. For more information, see the "View IA Records Pending Verification & Completion" section of this chapter.

Step 6: If applicable, click on the book icon to the right of the Contract field.

The **Contract Selection** window displays:



The information in the **Contract Selection** window is sorted by contract number in ascending order. To change the sort order or type, click on the corresponding column title.

Step 7: To display only those contracts with a particular status, select a status from the list box in the *Status* field.

By default, the contracts displayed in the window are those associated with the user's office.

Step 8: To select a contract from another location, choose a location from the list box in the *Location* field.

Tip: To display all available contracts that have been authorized or activated, choose <All> from the list box in the Location field.

Step 9: Select the desired contract from the list in the lower portion of the window, using the scroll bar, if necessary.

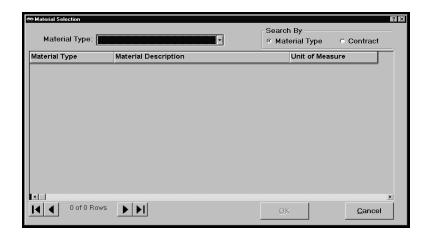
Step 10: Click **OK**.

HiCAMS returns to the **IA Correlation Detail** window. The selected contract number displays in the *Contract* field. Division, Federal Aid, and County information have also been inserted based on information obtained from the selected contract.

Step 11: If the division information that was inserted based on the contract number chosen in **Step 9** needs to be changed, select a division from the list box in the *Division* field.

Step 12: Click the material icon to the right of the *Material* field.

The Material Selection window displays:



Note: By default, the Material Selection window displays with the Search By filter set to "Material Type". To search for a material based on the contract's Bill of Materials, change the Search By filter to "Contract'.

Step 13: Select a material type from the list box in the *Material Type* field. HiCAMS will list all materials associated with the selected Material Type.

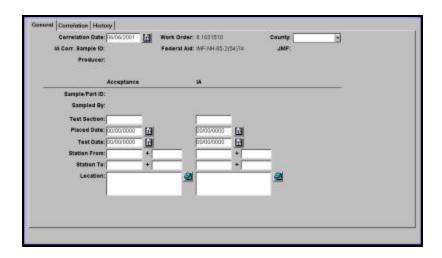
Step 14: Choose a material from the grid by double clicking on the appropriate line item, or click the line item once, then click **OK**.

HiCAMS returns to the **IA Correlation Detail: New** window.

Note: The Material Type field has been filled in based on the material chosen in **step 14** above.

General Tab

An example of the **General** tab appears below:



Where applicable, the *Work Order*, *Federal Aid*, and *JMF* fields will be automatically set based on the contract number selected in **step 9** and the material selected in **step 14**.

- **Step 15:** By default, the *Corr. Date* field will include today's date. To change this, doing one of the following.
 - Click in the field; then type the correlation date, using the format MM/DD/YYYY.
 - Double-click in the field. The Calendar window displays. Navigate to the desired date and doubleclick on it.

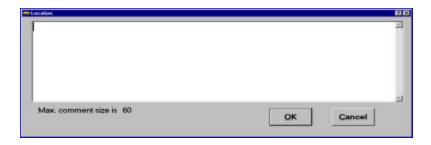


- **Step 16:** Select a county from the list box in the *County* field.
- **Step 17:** Enter the field id or test section number for both the IA and Acceptance tests in *the Field ID/Test Section* fields.
- **Step 18:** If applicable, enter the date placed for both the IA and Acceptance tests in *the Sample/Placed Date* fields by doing one of the following.

- Click in each field; then type the Date Placed, using the format MM/DD/YYYY.
- Double-click in the field. The Calendar window displays. Navigate to the desired date and doubleclick on it.



- **Step 19:** Enter the test date for both the IA and Acceptance, Project, or QA tests in the same manner as described in step 15 above.
- **Step 20:** Enter beginning station information for both the IA and Acceptance, Project, or QA tests in the *Station From* fields.
- **Step 21:** Enter ending station information for both the IA and Acceptance, Project, or QA tests in the *Station To* fields.
- **Step 22:** Enter physical location information for both the IA and Acceptance, Project, or QA tests in the Location fields by doing one of the following:
 - Enter location information by typing directly in each *Location* field.
 - Click the **book** icon to the right of either *Location* field and type in the **Location** window that displays:



Step 23: Click the **Detail** tab.

The layout and functionality of the **Detail** tab page is determined by the correlation type selected in **step 4** On the pages that follow, find the subsection that corresponds to the correlation type being created and continue with **step 24**.

Conventional Density Details

The IA Inspector shall visit the project site and determine if the Project Density Inspector has performed a required acceptance test on the current lot of material. If so, and the hole has not been covered up, the IA Inspector shall perform their test adjacent to the acceptance test. The IA Inspector shall obtain the acceptance test results from the Project Density Inspector.

The Conventional Density Detail tab displays below:

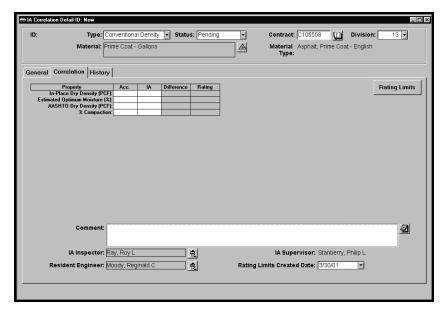
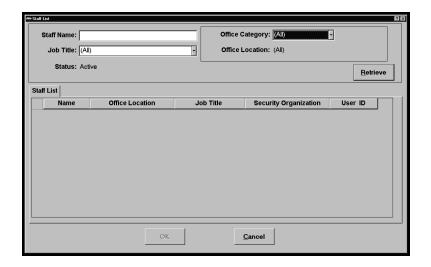


Figure 3

Note: The limits used to determine rating values for each property can be viewed by clicking the Rating Limits button.

- **Step 24:** If applicable, enter in-place dry density test results for both the IA and Acceptance tests in the *In-Place Dry Density* fields.
- **Step 25:** If applicable, enter estimated optimum moisture test results for both the IA and Acceptance tests in the *Estimated Optimum Moisture* fields.
- **Step 26:** If applicable, enter the AASHTO dry density test results for both the IA and Acceptance tests in the *AASHTO Dry Density* fields.
- **Step 27:** If applicable, enter the percent compaction test results for both the IA and Acceptance tests in the *% Compaction* fields.
- **Step 28:** Enter any comments relevant to the correlation by doing one of the following:
 - Enter comments by typing directly in the *Comment* field.
 - Click the book icon to the right of the *Comment* field and type in the **Comment** window that displays:

If the IA Inspector inserted by default into the *IA Inspector* field is incorrect, click the staff icon to the right of the *IA Inspector* field. The **Staff Selection** window displays:



Note: IA Inspector information is defaulted based on information obtained from the contract. Only the IA Section Supervisor can change this information on a correlation that is linked to a contract.

- **Step 29:** Select the appropriate staff from the list by doing one of the following:
 - Double click the staff line item in the staff list
 - Single click the staff line item in the staff list and click OK
- **Step 30:** Click the **Save** button on the toolbar.

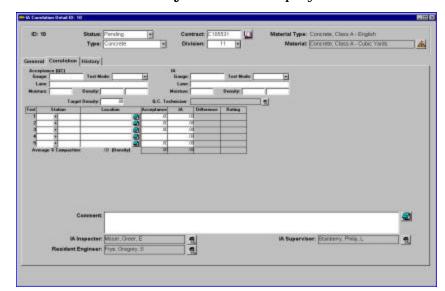


Note: Difference and Rating values are calculated automatically by the HiCAMS application. Please inform the IA Section Supervisor if these calculations are incorrect.

Nuclear Density Details

The IA Inspector shall visit the project site and determine the location of the acceptance test sections tested since his last visit. At random, he will choose which test sections will be used for comparative

purposes. Comparative testing can be performed on any section, regardless of its acceptance status.

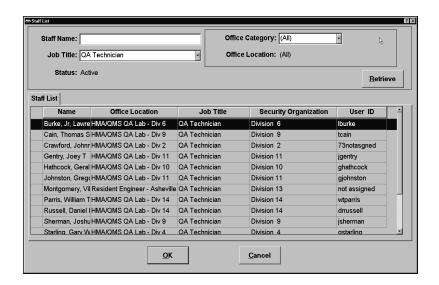


The **Nuclear Density Detail** tab displays as below:

Figure 4

- **Step 24:** Enter serial numbers for both the IA and QA gauges in the appropriate *Gauge* fields
- **Step 25:** Select a test mode from the list box in the *Test Mode* fields for both the IA and QA gauges
- **Step 26:** Enter lane information for both the IA and QA tests in the appropriate *Lane* fields
- **Step 27:** Enter standard moisture counts for both the IA and QA gauges in the appropriate *Moisture* fields
- **Step 28:** Enter standard density counts for both the IA and QA gauges in the appropriate *Density* fields
- **Step 29:** Enter target density information in the *Target Density* field

Step 30: Click the staff icon to the right of the *QA Technician* field. The **Staff Selection** window displays:



By default, the **Staff Selection** window will be filtered to display staff members with the QA Technician job title.

- **Step 31:** Select the appropriate staff from the list by doing one of the following:
 - Double click the staff line item in the staff list.
 - Single click the staff line item in the staff list and click OK.
- **Step 32:** Enter the station number for the first set of IA and Acceptance density tests on line 1 of the test result grid.
- **Step 33:** Enter the first set of IA and Acceptance density test results on line 1 of the test result grid.

A completed example of line 1 appears below:

Test	Station			Location		Acceptance	IA	Difference	Rating
1	125 -	1	1234	200 yds nth of exit 27		97.00	96.50	.50	
2		+				.00	.00		
3		•			2	.00	.00		
4		٠					.00		
5		•				.00	.00		

Figure 5

- **Step 34:** Using the remaining lines in the test result grid, repeat **step 29** and **step 30** for each additional set of density test results.
- **Step 35:** Enter any comments relevant to the correlation by doing one of the following:
 - Enter comments by typing directly in the *Comment* field.
 - Click the book icon to the right of the *Comment* field and type in the **Comment** window that displays:



Step 36: If the default IA Inspector and/or RE information is incorrect, click the staff icon to the right of the *IA Inspector* and/or *Resident Engineer* field.

Note: Staff who are not the IA Inspector or Supervisor of the IA Correlation are allowed to add comments under the following conditions:

- ◆ They are specified on the IA Correlation as Division Construction Engineer (only for IA Type = Asphalt Extraction), QA Supervisor (only for IA Type = Asphalt Extraction or Asphalt Core), Pavement Construction Engineer (only for IA Type = Asphalt Extraction), QA/QC Technician (only for IA Type = Nuclear Densities)
- ♦ They have update access to the IA Detail window security tag.

Step 37: Select the appropriate IA Inspector.



Step 38: Click on the **Save** button on the toolbar.

Note: Average, Difference, and Rating values are calculated automatically by the HiCAMS application. Please inform the IA Section Supervisor if these calculations are incorrect.